"Moving Forward with Institutional Control Tracking"
EPA and ASTSWMO 3T
September 17, 2003

Meeting Summary

Introductions and Agenda Overview
Following a round of introductions, opening remarks and an overview of the meeting agenda were provided. Emphasizing the importance of state input and participation in the development of a national institutional control (IC) tracking network, it was stated that EPA hopes to learn from the experiences of the states in developing their own tracking system(s). The group was informed of EPA's efforts to address the effectiveness of ICs, particularly the monitoring and enforcement of ICs by those who hold that responsibility within state and local government. The group was also informed of a recent initiative by ASTM International (ASTM) involving the development of an industry standard of minimum data for the tracking of ICs. The group was encouraged to provide their input.

Update of EPA's One Cleanup Program Initiative
EPA Office of Solid Waste and Emergency Response (OSWER) provided an introduction and update of EPA's One Cleanup Program initiative. The One Cleanup Program is intended to integrate the assessment and cleanup efforts of EPA's cleanup programs to increase speed and efficiency of environmental cleanups and improve the sharing of information with affected citizens. It is envisioned that the One Cleanup Program will result in the following three major improvements:

- More consistent and effective cleanups;
- Clear and more useful information about cleanups; and
- Better performance measures.

To achieve these goals, EPA has developed the following initiatives:

- Area wide pilot projects - EPA will work with the regions, states, tribes, local governments, and other federal agencies to select and conduct area wide pilot projects to demonstrate cross-program coordination and consistency in cleaning up groups of co-located or similar contaminated sites;
- Cross-program task forces including:
  - Ground water cleanup - this task force is currently forming an agenda;
  - Site assessment decision making - considering ways to ensure the best combination of program approaches for categories of sites or large, challenging problems - this task force is still being organized; and
  - Long-term site stewardship - post-construction, financial assurance, and technical issues (historically, attention has not been given to this end of the cleanup pipeline) - ICs are included under this task force;

- An integrated network of systems - EPA will work to develop an integrated network of systems that will clearly identify the agencies involved, the strategy for cleanup, and those responsible for safeguarding ICs and providing long-term monitoring and maintenance at contaminated sites. Examples of systems include:
  - "Sites in My Community" Information Network and Linked Systems - this is a long-term goal to provide greater community involvement and ties to technology;
  - Institutional Controls Tracking Network and Linked Systems - EPA will lead a national effort to develop linkages between systems for tracking ICs, working with regions, states, and local governments to pilot and expand existing efforts; and
  - Waste Sites Technologies Information System - this effort will build on existing systems and efforts to speed up and broaden the transfer of scientific and technological information about contaminated sites and cleanups; and
- Better performance measures - EPA will work to develop performance measures that demonstrate the overall effectiveness and benefits of the nation's combined cleanup efforts. Examples of measurements include:
  - Protection of human health through waste cleanup activities;
  - Protection of the environment and ecology through waste cleanup activities;
  - Amount of land made available through cleanup activities for productive uses; and
  - Economic benefit of waste cleanup activities.

In conclusion, the importance of state and tribal participation in One Cleanup Program activities was emphasized.

IC Data Element Registry (DER) Introduction and Discussion

To provide background and an introduction to the IC DER, DynCorp/CSC, outlined the steps taken, to date, in the development of the IC DER as well as its organization. Expanding upon the IC data categories developed and identified as important to the tracking of ICs during previous multi-stakeholder focus group workshops, the Data Element Dictionary (DED) was developed and discussed during the May 2003 Chicago Workshop to formulate a common language related to ICs (i.e., dictionary and thesaurus of IC terms). The Model DED was compiled by taking into account the data elements listed in the existing systems of federal, state, and local government, and industry stakeholders. The representatives of the ASTSWMO 3T group recognize EPA's effort to seek out and include the suggestions of the states and tribes in the ongoing development of the IC tracking network. States and tribes will continue to work with EPA toward that end goal.

Based on discussions during the Chicago Workshop, the Model DED was revised as the IC Data Element Registry (IC DER) because data element dictionaries usually define the data elements of a specific database. Additionally, the IC DER was reorganized to assist users in understanding the relationships of the data categories. Many of the data elements listed within the Model DED were also removed and/or consolidated. The IC DER is intended to facilitate IC data exchange between the various IC tracking systems at all levels of government and in the private sector.

To allow IC tracking systems to communicate effectively, complex relationships between IC information categories must be described and identified. At the heart of these relationships is the definition of an IC, which consists of a location (IC Location) where a set of use restrictions are specified in an IC instrument to reduce the risk of exposure to remaining contamination (IC Objective). A subtle difference exists between what is referred to as the objective of an IC and the specific use restriction that an IC instrument

outlines. The objective of an IC is defined as the intended goal of the IC in preventing or reducing human exposure to remaining contamination. IC objectives are typically outlined within regulatory environmental cleanup documents. However, use restrictions are usually specified in the IC instrument and are intended to meet IC objectives. For example, a decision document (e.g., a Record of Decision (ROD)) may call for an IC with an objective of prohibiting dermal contact with contaminated soil remaining onsite, while the implemented IC instrument (e.g., a restrictive covenant) may outline specific use limitations, including prohibiting excavation of soil on the property to meet the IC objective outlined in the ROD. Because use restrictions are typically outlined in IC instruments, they are included under the data category of IC Instruments within the IC DER. IC objectives are included under a separate data category because they are typically outlined independently in regulatory environmental cleanup documents prior to the development of use restrictions.

Following the introduction and overview of the IC DER, the group discussed next steps needed to further develop and finalize this common language for IC tracking. The following main points were raised during the discussion:

- Before data exchange of IC information between systems can occur, a common language (IC DER) must be agreed upon by all parties that voluntarily participate;
- To decrease the amount of duplication and to ensure consistency, it is important to make use of existing methods of tracking ICs, particularly for identifying coverage areas;
- It is envisioned that the IC tracking network will be implemented in phases, collecting minimum IC information first to determine the cost and effort associated with this process. Initial efforts may require significant effort and resources; however, it is envisioned that ongoing maintenance and use of the network will require less effort and resources;
- It is anticipated that information available through the IC tracking network would be used to develop management tools such as IC Implementation Plans;
- EPA would like to engage states, tribes, and other stakeholders in data exchange pilots, including organizations who have an existing system as well as those who do not presently have a system in place. For those who do not have a system, EPA will propose options available for IC tracking including providing its system to other stakeholders. Electronic data deliverables (EDDs), in the specific format necessary, would be used to facilitate the data exchanges between EPA and other existing stakeholder systems;
- It is important that all stakeholders understand that the inclusion of a data element in the IC DER does not indicate the need for the same data element to be listed in the stakeholder's existing system. However, if the information associated with that data element can be obtained from another system, the stakeholder could provide that information to the network; and
- It was suggested that one way to identify similarities among state system data elements and those included in the IC DER would be through detailed meta-data.

The group was reminded that their input into the applicability of the IC DER is critical for the success of the IC tracking network.

Introduction and Demonstration of EPA's IC Tracking System (ICTS)

A brief introduction and overview of ICTS was provided by DynCorp/CSC. ICTS is comprised of four major components: 1) Data Entry, 2) Query, 3) Reports, and 4) Mapper. It can be accessed from any location with Internet connectivity and requires a User ID and password. Increased flexibility in the system is provided through its capacity for online or offline use. To reduce redundant data entry,

information exchanges with other systems can be preformed through ICTS. Several Help screens and a glossary are provided as additional resources in the system to aid the user in data entry and editing.

DynCorp/CSC demonstrated the elements of the Data Entry Form, including the following categories of IC information that can be entered and tracked within ICTS:

- Objectives;
- Instruments;
- Coverage;
- Implementation;
- Monitoring;
- Enforcement;
- Termination; and
- Technology.

Argonne National Laboratory demonstrated the Mapper component of ICTS. Through the GIS-based Mapper component, the location of ICs can be displayed. Geospatial data layers provide additional context for users. In the future, additional layers are planned to visually depict the relationship of use restrictions to media.

To remain consistent with stakeholders and the technologies that they are using, open communication between EPA and all stakeholders is necessary. In addition, EPA is eager to learn from the experiences of the states and encourages their suggestions and input for further improvements and development of the ICTS.

IC Data Exchange Pilots and Next Steps

Throughout the discussions, several ideas and suggestions for facilitating data exchange pilots were explored. The following summarizes the key points discussed regarding data exchange pilots with existing state tracking systems, organized by state:

- Missouri Department of Natural Resources (DNR)
  - Using funding provided through a brownfields grant, the Missouri system will be expanded to capture IC information from various Missouri information systems for a "one-stop" query. It is envisioned that the new improvements to the application will have the capacity to provide an EDD for data transfer with EPA systems.
  - To facilitate a data exchange with EPA and reduce duplicative data entry efforts, Missouri DNR would need to view the information that EPA possesses for sites in the state.
  - It was suggested that a GIS component be incorporated into the Missouri system updates. EPA would work with the state to develop this capability.

- New Jersey DEP
  - It was suggested that data exchanges be conducted with the New Jersey system, which currently has the capacity to track ICs and their coverages through a GIS component (Mapper application). The New Jersey system contains information regarding all contaminated sites that are two years or older. Information concerning ground water contamination sites is required to be tracked in the New Jersey system for use by well

drillers.

- Delaware Natural Resources and Environmental Control (DNREC)
  - Data exchange pilots with the DNREC Environmental Navigator system were discussed. DNREC's system tracks information regarding natural resources, census data, and applicable restrictions through multiple GIS-based overlays. The system provides views and links to relevant documents through TIF files. The Delaware Environmental Navigator is not based on a program specific approach, but is departmentalized, similar to EPA's One Cleanup Program approach.
  - Delaware's Environmental Navigator can be found via the Internet at http://www.dnrec.state.de.us/DNRECeis/.

- Florida DEP
  - Florida DEP has an IC registry developed to meet the requirements specified by state statute. The functions of the proposed EPA IC tracking system would be an enhancement over Florida's current IC registry and could be a benefit depending on the economics of its implementation. Preliminary steps in organizing a data exchange pilot with EPA will be initiated.

For those states that do not have existing tracking systems, EPA offered them the use of EPA's system for the management of their data. It was suggested that EPA define the requirements and effort that would be needed on the part of states that do not have existing systems and wish to use EPA's system.

In addition, other possible pilots were suggested, including pilots to test the usefulness of the IC tracking network in meeting the needs of real estate professionals. It was also noted that International City/County Management Association (ICMA), along with ASTSWMO, has been instrumental in promoting the IC tracking network.

The importance of keeping the goals and users of the network in the forefront of development was stressed. The network will only be useful if the information can easily be retrieved by its users. Therefore, it is important that the system not be made too complicated or over-laden with information and that this is tested during pilots.

IC Tracking Action Plan

A focused discussion of the IC Tracking Action Plan to determine priorities and a direction for next steps in the IC tracking initiative was conducted. Through the discussion, the following near-term priority action items were identified:

- Clarify the vision of the IC tracking network, using the Venn Diagram of the focus group concept paper;
- List user groups and their business processes (e.g., geospatial functions and data format requirements of each user group) to verify that their functional requirements are correctly stated (This action item needs further clarification);
- Conduct targeted outreach to IC data user groups, such as Phase I information providers, local permitting authorities, One Call information providers, Non-Governmental Organizations (NGOs), and ATSM; continue to solicit input from experts in these areas;
- Conduct targeted outreach to local IC data owners, such as deed recording offices and local

zoning offices. Create incentives and demonstrate them to local data owners to make their IC information available via the IC tracking network (State representatives could be advocates for this effort - EPA could provide speaking materials);

- Create a mechanism for distributing IC tracking systems and their functionalities to state and local governments that cannot afford them;
- Identify funding to obtain existing IC data;
- Develop local-state-federal "crosswalk" for existing IC tracking systems;
- Define the relative costs and benefits of the IC tracking network (A draft document to address these subjects is being developed - anticipated completion by November 2003);
- Develop IC tracking network data quality plan; and
- Develop pilot-scale IC tracking network.

EPA will work on accomplishing these action items and looks forward to continued contact and coordination with the states and the ASTSWMO 3T group. This type of continued, open dialogue with the states and local governments is essential in ensuring that the IC tracking network is consistent with the technologies used by all stakeholders and that EPA's approach for its own system makes sense.

Closing

All of the participants were thanked for their hard work and continued dedication to the development of a national IC tracking network. As a reminder, the group was invited to attend an open forum on the IC tracking initiative that will be held during the Brownfields Conference in Portland, Oregon on Sunday, October 26, 2003.

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